

Amendments to the Claims:

1. (Currently Amended) A method of inducing expression of at least one gene in a cultured cell, comprising the steps of:

culturing at least one cell;

contacting said cell with a transcription factor decoy oligonucleotide sequence ~~directed against a nucleotide sequence~~ encoding a shear stress response element and complement thereof;

and determining the expression of said gene in said cell.

12
2. (Original) The method of claim 1, wherein said oligonucleotide comprises a terminal phosphothiorate moiety and a phosphodiester backbone.

3. (Original) The method of claim 1, wherein said oligonucleotide passes cell membranes and accumulates in the nuclear compartment of said cell.

4. (Cancelled)

5. (Previously Amended) The method of claim 1, wherein said cultured cell is selected from the group consisting of an epithelial cell and an endothelial cell.

13
6. (Currently Amended) The method of claim-4_1, wherein said cultured cell is selected from the group consisting of renal cortical cell, renal fibroblast cell, hepatocyte, pancreatic islet, renal interstitial cell, parathyroid cell, thyroid cell, pituitary cell, ovarian cell and testicular cell.

7. (Previously Amended) The method of claim 1, wherein said cultured cell is grown in two dimensional culture.

8. (Original) The method of claim 1, wherein said shear stress response element is selected from the group consisting of GAGACC and GGTCTC.

9. (Original) The method of claim 1, wherein the gene encodes a protein selected from the group consisting of megalin, cubulin, erythropoietin and 1-a-hydroxylase.

10. (Previously Amended) The method of claim 1, wherein the concentration of said oligonucleotide is from about 10 nM to about 10 mM.

11. (Cancelled)

- C4
Apr 07.2007
Rule 1.126
12. (Cancelled)
- ~~13.~~ (Previously Added) A method of claim 1, wherein said cultured cell is grown in a rotating wall vessel.
14. – 26. (Cancelled)
- ~~27.~~ 27. (New) A method of inhibiting expression of at least one gene in a cultured cell, comprising the steps of:
culturing at least one cell;
contacting said cell with a transcription factor decoy oligonucleotide encoding a shear stress response element and complement thereof; and
determining the expression of said gene in said cell.
- ~~28.~~ 28. (New) A method of monitoring expression of at least one gene in a cultured cell, comprising the steps of:
culturing at least two cell cultures;
contacting a first cell culture with a transcription factor decoy oligonucleotide encoding a shear stress response element and complement thereof; and
comparing the expression of said gene in both cell cultures.
- ~~29.~~ 29. (New) A method of monitoring expression of at least one gene in a cultured cell, comprising the steps of:
culturing at least two cell cultures, wherein a first cell culture and a second cell culture contain different concentrations of a transcription factor decoy oligonucleotide encoding a shear stress response element and complement thereof; and
determining the expression of said gene.
- ~~30.~~ 30. (New) A method of modulating 1,25-dihydroxy-vitamin D3 levels in a cultured cell, comprising the steps of:
culturing at least one cell;
contacting said cell with a transcription factor decoy oligonucleotide encoding a shear stress response element and complement thereof; and
determining the amount of 1,25-dihydroxy-vitamin D3.
- ~~31.~~ 31. (New) A nucleic acid sequence encoding, a transcription factor decoy oligonucleotide comprising a SSRE and complement thereof.
- ~~32.~~ 32. (New) The nucleic acid of claim ~~31~~, wherein the nucleic acid comprises a phosphothiorate moiety and a phosphodiester backbone.
- ~~33.~~ 33. (New) The nucleic acid of claim ~~31~~, wherein the nucleic acid encodes SEQ ID NO: 1.

C 4

~~35~~ ^{34.} (New) The nucleic acid of claim ~~21~~³¹, wherein a phosphothiorate moiety is substituted for a phosphodiester in the nucleic acid backbone.

~~36~~ ^{35.} (New) The nucleic acid of claim ~~31~~³², wherein a phosphothiorate moiety is substituted for a phosphodiester in the nucleic acid backbone.
